Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously presented) An apparatus for heat exchange, having

- at least three flow devices through which at least one flowable medium (fluid) flows;
- at least one fluid inflow device, at least one fluid collection and/or distribution device and at least one fluid outflow device for each of the flow devices through which substantially liquid fluids flow,

wherein

- at least two flow assemblies are provided, each having at least two flow elements, which are arranged in such a manner that different fluids flow through them alternately,
- the flow elements belonging to at least one flow device through which substantially liquid fluids flow are connected in a substantially gastight and liquid-tight, positively locking and/or nonpositively locking and/or cohesive manner to at least one fluid collection and/or distribution device,
- the main directions of flow of all the fluids in the flow elements lie in planes that are substantially parallel to one another,
- at least two flow assemblies are directly connected in series in a positively locking and/or nonpositively locking and/or cohesive manner and/or flow-connected by means of fluid distribution devices, at least with respect to one flow device.

2. (Previously presented) An apparatus, in particular the apparatus as claimed in claim 1, wherein

the flow elements, at least in sections, are formed by in particular, although not exclusively, hollow disks, flat tubes, plates, layers and the like.

3. (Previously presented) An apparatus, in particular the apparatus as claimed in claim 1, wherein
at least one fluid collection and/or distribution device is formed at least in sections in particular, although not exclusively, by hollow bodies and/or tubes.

4. (Previously presented) An apparatus, in particular the apparatus as claimed in claim 1, wherein
at least one fluid collection and/or distribution device is formed at least in part from longitudinal-side openings in the flow elements, a first number of simple openings forming fluid inlets and fluid outlets with respect to adjacent flow elements, and sealing devices being arranged around a second number of openings, in order to form passages in the corresponding flow element, through which passages flow elements adjacent to this flow element are flow-connected.

5. (Previously presented) An apparatus, in particular the apparatus as claimed in claim 1, wherein
turbulence-generating and/or turbulence-increasing shaped elements are provided.

6. (Previously presented) An apparatus, in particular the apparatus as claimed in claim 1, wherein
the turbulence-generating and/or turbulence-increasing shaped elements are taken from a group which includes in particular, although not exclusively, fins, webs, studs, grooves, stamped indentations or milled-out sections.

7. (Previously presented) An apparatus, in particular the apparatus as claimed in claim 1, wherein
the turbulence-generating and/or turbulence-increasing shaped elements are arranged in at least one flow element and/or between at least two flow elements.

8. (Previously presented) An apparatus, in particular the apparatus as claimed in claim 1, wherein

the profile of at least one flow element has turbulence-generating and/or turbulence-increasing properties.

9. (Previously presented) An apparatus, in particular the apparatus as claimed in claim 1, wherein
at least two flow elements through which different fluids flow are connected on the longitudinal sides in a positively locking and/or nonpositively locking and/or cohesive manner.

10. (Previously presented) An apparatus, in particular the apparatus as claimed in claim 1, wherein
at least two flow elements through which the same fluid flows are connected on the longitudinal sides by means of in particular, although not exclusively, the turbulence-generating and turbulence-increasing shaped elements which have their own profile and/or are arranged between them, in such a manner that the at least one cavity which is thereby formed between these flow elements forms a flow element for a different fluid.

11. (Previously presented) An apparatus, in particular the apparatus as claimed in claim 1, wherein
the joins between the flow elements are taken from a group which includes soldered joins, welded joins or adhesively bonded joins.

12. (Previously presented) An apparatus, in particular the apparatus as claimed in claim 1, wherein
at least one sealing element, which is formed in particular, although not exclusively, by separating elements, blind elements and/or hollow elements which are empty of fluid, is provided between at least two flow elements through which different fluids flow.

13. (Previously presented) An apparatus, in particular the apparatus as claimed in claim 1,

wherein
at least one of the sealing elements is arranged between at least two flow assemblies.

14. (Previously presented) An apparatus, in particular the apparatus as claimed in claim 1, wherein
at least one of the sealing elements has in particular, although not exclusively, a hollow element which is empty of fluid, a leaktightness control opening.

15. (Previously presented) An apparatus, in particular the apparatus as claimed in claim 1, wherein
at least one of the sealing elements has at least one leaktightness sensor, which causes a physically perceptible signal to be output in the event of a fluid escaping from one of the flow devices.

16. (Previously presented) An apparatus, in particular the apparatus as claimed in claim 1, wherein
at least two flow assemblies are separated from one another in a substantially thermally insulating way, in particular, although not exclusively, by hollow elements and/or separating elements or by being arranged spaced apart.

17. (Previously presented) An apparatus, in particular the apparatus as claimed in claim 1, wherein
shaped elements are provided within at least one flow element, which shaped elements, at least in sections, alter the main direction of flow of the fluid flowing within the flow element.

18. (Previously presented) An apparatus, in particular the apparatus as claimed in claim 1, wherein
at least one flow device has admixed with it, via at least one further inflow device, a fluid, in particular, although not exclusively, a fluid which corresponds to the fluid in this flow device.

19. (Previously presented) An apparatus, in particular the apparatus as claimed in claim 1, wherein
the series connection according to the invention of at least two flow assemblies with respect to at least one flow device is effected in such a manner that the temperature gradient of the fluid of this flow device along the flow path of this fluid from the fluid inflow device to the fluid outflow device of this flow device has a substantially constantly decreasing magnitude with respect to each of the other fluids flowing through the flow assemblies of the flow assembly series connection.

20. (Currently amended) An apparatus, in particular the apparatus as claimed in ~~wherein~~ claim 1,
wherein
fluids are mixed in the heat exchanger, it being possible for different proportions of the overall fluid to flow through different flow elements.

21. (Previously presented) An apparatus, in particular the apparatus as claimed in claim 1, wherein
a fluid is divided in the heat exchanger, it being possible for different proportions of the divided fluid to flow through different flow elements.

22. (Previously presented) An apparatus, in particular the apparatus as claimed in claim 1, wherein
in individual flow assemblies the heat is exchanged by condensation or evaporation of a fluid.

23. (Previously presented) An apparatus, in particular the apparatus as claimed in claim 1, wherein
the individual flow assemblies can be operated as crosscurrent, countercurrent or cocurrent heat exchange units.

24. (Previously presented) An apparatus, in particular the apparatus as claimed in claim 1, wherein
the heat exchanger is part of a cooling circuit, and the individual flow assemblies are supplied with the fluid from a further low-temperature and/or high-temperature cooling circuit.

25. (Previously presented) A process for producing an apparatus for heat exchange, in which:

- at least three flow devices are formed, in particular, although not exclusively, by punching out well-shaped metal plates, which form flow elements, with longitudinal-side openings being punched out, of which a first number of simple openings form fluid inlets and outlets with respect to adjacent flow elements, and sealing devices, in particular, although not exclusively, stamped projections in the corresponding flow element which adjoin the adjacent flow element in a cohesive and/or positively locking and/or nonpositively locking manner, in order to form passages in the corresponding flow element, through which passages flow elements adjacent to this flow element are flow-connected, being arranged around a second number of openings,

wherein

- at least two flow assemblies are formed by in particular, although not exclusively, stacking the flow elements on top of one another, in which case the flow elements are to be arranged in such a manner that different fluids flow through them alternately,
- the main directions of flow of all the fluids in the flow elements lie in planes that are substantially parallel to one another,
- at least two flow assemblies are directly connected in series in a positively locking and/or nonpositively locking and/or cohesive manner and/or in a manner flow-connected by means of fluid distribution devices, at least with respect to one flow device,

- joins selected from a group which includes soldered joins, welded joins or adhesively bonded joins being produced between the flow elements, fluid inflow, outflow, distribution and/or collection devices.

26. (Previously presented) The use of an apparatus, in particular the apparatus as claimed in claim 1, as an least two-stage heat exchanger for use in land-based vehicles, aircraft or water-borne vehicles, in particular for exhaust-gas cooling for an internal combustion engine.